

Form PTO-892 U.S. Department of Commerce		Serial Number 10/759,985	Group Art Unit 1623	Attachment to Paper Number 01132006	
Notice of References Cited		APPLICANT(S) Schinazi et al.			

Published U. S. Patent Applications

*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	Filing Date If Appropriate
*	P1	2002/0198173 A1	12/26/02	Schinazi et al. (I)	514	050.000	

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*		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	Filing Date If Appropriate
*	A	6,391,859 B1	05/21/02	Schinazi et al. (II)	514	049.000	
*	B	6,232,300 B1	05/15/01	Schinazi et al. (III)	514	049.000	
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*	D	5,703,058 A	12/30/97	Schinazi et al. (V)	514	045.000	
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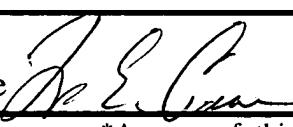
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*	L	WO 94/14456 A1	07/07/94	World (WO/PCT)	Biochem Pharma	-----	-----	
*	M	WO 94/27616 A1	12/08/94	World (WO/PCT)	Yale University	-----	-----	
*	N	WO 95/07287 A1	03/16/95	World (WO/PCT)	C. N. R. S. (Fr.)	-----	-----	
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Other References (Including Author, Title, Date, Pertinent Pages, etc.)

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† Month of publication data is unavailable. Issue Number information is provided whenever possible following the volume number in parentheses.

EXAMINER L. E. Crane 	DATE 01/13/06	page 1 of 2
¥:Reference not presently available.		
*A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, Section 707.05(a).)		

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Schinazi et al.

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†† Copy supplied by applicant as PTO-1449 ref. JH.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

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Application Number	10/759,985
Filing Date	January 16, 2004
First Named Inventor	Schinazi <i>et al.</i>
Group Art Unit	Unassigned
Examiner	Unassigned
Attorney Docket Number	18085.105327 EMU 133 CON 5

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Examiner Signature	L. E. Crane	<i>L. E. Crane</i>	Date Considered	01/16/2006
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2

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3

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Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						T ⁶	
		DK	Database WPI, Week 8748, Derwent Publications Ltd., London, GB; AN 87-338135 for JP 62-242624 A to Asahi Glass 10-23-1987; [98-338135], Abstract.						
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<i>PLC</i>	EA	BALZARINI <i>et al.</i> , "5-Chloro-substituted Derivatives of 2', 3'-Didehydro-2', 3'-dideoxyuridine, 3-Fluoro-2', 3'-dideoxyuridine and 3'-Azido-2', 3'-dideoxyuridine as Anti-HIV Agents," <i>Biochem. Pharmacology</i> , 38(6), 869-874 (1989).	
<i>PLC</i>	EB	BALZARINI, J., <i>et al.</i> , "Potent and Selective Anti-HTLV-III/LAV Activity of 2',3'-Dideoxycytidinene, the 2',3'-Unsaturated Derivative of 2',3'-Dideoxycytidine," <i>Biochemical and Biophysical Research Communications</i> , 140(2):735-742 (1986).	
<i>PLC</i>	EC	BEACH, J. W., <i>et al.</i> , "Synthesis of Enantiomerically Pure (2'R,5'S)-(1)-[2-hydroxymethyl]-oxatolan-5-yl] Cytosine as a Potent Antiviral Agent Against Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV)," <i>J. Org. Chem.</i> , 57:2217-2219 (1992).	
<i>PLC</i>	ED	BELLEAU, B., <i>et al.</i> , "Design and Activity of a Novel Class of Nucleoside Analogs Effective Against HIV-1," International Conference on AIDS, Montreal, Quebec, Canada, Jun. 4-9, 1989, p. 516.	
<i>PLC</i>	EE	BELLEAU, B., <i>et al.</i> , <i>Chem. Abst.</i> 118(17):169533s (1993).	
<i>PLC</i>	EF	BELLEAU, B., <i>et al.</i> , "A Novel Class of 1,3-Oxathiolane Nucleoside Analogs Having Potent Anti-HIV Activity," <i>Bioorgan. Med. Chem. Lett.</i> , 3(8):1723-1728 (1993)	
<i>PLC</i>	EG	BIRON <i>et al.</i> , "Anti-HIV Activity of the Combination of Didanosine and Hydroxyurea in HIV-1 Infected Individuals," <i>J. AIDS and Human Retrovirology</i> , 10(1):36-40 (August 1995).	
<i>PLC</i>	EH	BORTHWICK, <i>et al.</i> , "Synthesis and Enzymatic Resolution of Carbocyclic 2'-Ara-Fluoro-Guanosine: A Potent New Anti-Herpetic Agent," <i>J. Chem. Soc. Commun.</i> , 10:656-658 (1988).	
<i>PLC</i>	EI	BOUFFARD, D.Y., <i>et al.</i> , "Kinetic Studies on 22'-Difluorodeoxycytidine(Gemcitabine) with Purified Human Deoxycytidine Kinase and Cytidine Deaminase," <i>Biochem. Pharmacol.</i> , 45(9):1857-1861 (1993).	
<i>PLC</i>	EJ	CARTER <i>et al.</i> , "Activities of (-)-Carbovir and 3'-Azido-3'-Deoxythymidine Against Human Immunodeficiency Virus In Vitro," <i>Antimicrobial Agents and Chemotherapy</i> , 34(6):1297-1300 (1990).	
<i>PLC</i>	EK	CHANG, C.-N., <i>et al.</i> , "Biochemical Pharmacology of (+) and (-)-2',3'-Dideoxy-3'-Thiacytidine as Anti-Hepatitis B Virus Agents", <i>J. Biol. Chem.</i> , 267(3):22414-22420 (1992).	
<i>PLC</i>	EL	CHANG, Chien-Neng, <i>et al.</i> , "Deoxycytidine Deaminase-resistant Steroisomer Is the Active Form of (+/-)-2',3'-Dideoxy-3'-thiacytidine in the Inhibition of Hepatitis B Virus Replication," <i>J. Biological Chemistry</i> , 267(20):13938-13942 (1992).	
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Examiner Signature	L. E. Crane <i>PLC</i>	Date Considered	01/16/2006
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Sheet 6 of 14

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Application Number	10/759,985
Filing Date	January 16, 2004
First Named Inventor	Schinazi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	18085.105237 EMU 133 CON 5

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	FA	CHOI <i>et al.</i> , "In Situ Complexation Directs the Stereochemistry of N-Glycosylation in the Synthesis of Oxathiolanyl and Dioxalanyl Nucleoside Analogues," <i>J. Am. Chem. Soc.</i> , 113:9377-9379 (1991).	
	FB	CHOI <i>et al.</i> , "Synthesis, Anti-Human Immunodeficiency Virus, and Anti-Hepatitis B Virus Activity of Pyrimidine Oxathiolane Nucleosides," <i>Biorganic & Medicinal Chemistry Letters</i> , 3(4):693-696 (1993).	
	FC	CHOTTINGER, E.G., "Cloning and Expression of Human Deoxycytidine Kinase cDNA," <i>Proc. Natl. Acad. Sci. USA</i> , 88:1531-1535 (1991).	
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Examiner Signature

L. E. Crane

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				Filing Date	January 16, 2004
				First Named Inventor	Schinazi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
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<i>EE</i>	GA	DOONG, Shin-Lian, <i>et al.</i> , "Inhibition of the Replication of Hepatitis B Virus in vitro by 2',3'-Dideoxy-3'-Thiacytidine and Related Analogues," <i>Proc. Natl. Acad. Sci. USA</i> , 88:8495-8499 (October 1991).		
<i>EE</i>	GC	EMORY University, "Letter in re Opposition to EP-0 337 713," August 22, 1997; only p.1 supplied.		
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<i>EE</i>	GP	HERDEWIJN <i>et al.</i> , "Resolution of Aristeromycin Enantiomers," <i>J. Med. Chem.</i> , 28:1385-1386 (1985).		

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<i>LLC</i>	HA	HOARD and OTT, "Conversion of Mono-and Oligodeoxyribunucleotides to 5'-Triphosphates," <i>J. Am. Chem. Soc.</i> , 87(8):1785-1788 (April 20, 1965).	
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	HE	HOONG <i>et al.</i> , <i>Chem. Abst.</i> 117(19):192246p (1992).	
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<i>LLC</i>	HP	KHWAJA, T.A., <i>et al.</i> , "Fluorinated Pyrimidines," <i>J. Med. Chem.</i> , 10(6):1066-1070 (November 1967).	

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<i>Ree</i>	IA	KIM <i>et al.</i> , "Asymmetric Synthesis of 1,3-Dioxolane-Pyrimidine Nucleosides and their Anti-HIV Activity," <i>J. Med. Chem.</i> , 35(11):1987-1995 (1992).	
<i>Ree</i>	IB	KIM <i>et al.</i> , "1,3-Dioxolanylpurine Nucleosides (2R,4R) and (2R,4S) with Selective Anti-HIV-1 Activity in Human Lymphocytes," <i>J. Med. Chem.</i> , 36(1):30-37 (1993).	
<i>Ree</i>	IC	KIM, <i>et al.</i> , "L-beta-(2S,4S)-L-alpha-(2S,4R)-Dioxolanyl Nucleosides as Potential Anti-HIV Agents: Asymmetric Synthesis and Structure-Activity Relationships," <i>J. Med. Chem.</i> , 36(5):519-528 (March 5, 1993).	
<i>Ree</i>	ID	KIM <i>et al.</i> , "Potent Anti-HIV and Anti-HBV Activities of (-)-L-beta-Dioxolane-C and (+)-L-beta-Dioxolane-T and Their Asymmetric Syntheses," <i>Tetrahedron Lett.</i> , 33(46):6899-6902 (1992).	
<i>Ree</i>	IE	KOSHIDA <i>et al.</i> , "Structure-Activity Relationships of Fluorinated Nucleoside Analogs and Their Synergistic Effect in Combination with Phosphonoformate Against Human Immunodeficiency Virus Type I," <i>Antimicrobial Agents and Chemotherapy</i> , 33(12):2083-2088 (December, 1989).	
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<i>Ree</i>	IG	KRENITSKY, T.A., <i>et al.</i> , "3'-Amino-2',3'-Dideoxyribunucleosides of Some Pyrimidines: Synthesis and Biological Activities," <i>J. Med. Chem.</i> , 26:891-895 (1983).	
<i>Ree</i>	IH	KUKHANOVA <i>et al.</i> , "L-and D-Enantiomers of 2',3'-Dideoxycytidine 5'-Triphosphate Analogs as Substrates for Human DNA Polymerases," <i>J. Biol. Chem.</i> , 270(39):23056-23059 (September 29, 1995).	
<i>Ree</i>	II	LEE, Bonita, <i>et al.</i> , "In Vitro and In Vivo Comparison of the Abilities of Purine and Pyrimidine 2',3'-Dideoxynucleosides To Inhibit Duck Hepadnavirus," <i>Antimicrobial Agents and Chemotherapy</i> , 33(3):336-339 (March 1989).	
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<i>Ree</i>	IK	LIN <i>et al.</i> , "Potent and Selective In Vitro Activity of 3'-Deoxythymidine-2-Ene-(3'-Deoxy-2',3'-Didehydrothymidine) Against Human Immunodeficiency Virus," <i>Biochem. Pharm.</i> , 36(17):2713-2718 (1987).	
<i>Ree</i>	IL	LORI <i>et al.</i> , "Hydroxyurea as an Inhibitor of Human Immunodeficiency Virus-Type 1 Replication," <i>Science</i> , 266, 801-805 (4 Nov. 1994).	
<i>Ree</i>	IM	MAHMOUDIAN <i>et al.</i> , "Enzymatic Production of Optically Pure (2'R-cis)-2'-deoxy-3'-thiacytidine (3TC, Lamivudine): A Potent Anti-HIV Agent," <i>Enzyme Microb. Technol.</i> , 15:749-755 (September 1993), published by the Glaxo Group Research.	

** Duplicate citation: see PTO-892 for original cite.

Examiner Signature	L. E. Crane <i>[Signature]</i>	Date Considered	01/16/2006
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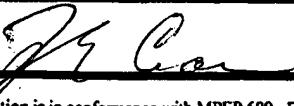
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Submitted for form 1449/PTO				<i>Complete if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/759,985
Sheet	10	of	14	Filing Date	January 16, 2004
				First Named Inventor	Schinazi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
				Attorney Docket Number	18085.105237 EMU 133 CON 5

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

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<i>JAC</i>	JA	MANSOUR <i>et al.</i> , "Anti-Human Immunodeficiency Virus and Anti-Hepatitis-B Virus Activities and Toxicities of the Enantiomers of 2'-Deoxy-3'-oxa-4'-thiocytidine and Their 5-Fluoro Analogues in Vitro," <i>J. Med. Chem.</i> , 38(1):1-4 (January 6, 1995).	
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<i>JAC</i>	JO	PAFF <i>et al.</i> , "Intracellular Metabolism of (-)- and (+)-cis-5-Fluoro-1-[2-(Hydroxymethyl)-1,3-Oxathiolan-5-yl] Cytosine in HepG2 Derivative 2.2.15 (Subclone P5A) Cells," <i>Antimicrobial Agents and Chemotherapy</i> , 38(6) 1230-1238 (1994).	

Examiner Signature	L. E. Crane 	Date Considered	01/16/2006
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<i>JKC</i>	KA	PAI <i>et al.</i> , "Inhibition of Hepatitis B Virus by a Novel L-Nucleoside, 2'-Fluoro-5-Methyl-.beta.-L-Arabinofuranosyl Uracil," <i>Antimicrob. Agents and Chemother.</i> , 40(2):380-386 (February 1996).
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<i>JKC</i>	KM	SCHINAZI, R.F., <i>et al.</i> , "Pure Nucleoside Enantiomers of .beta.-2',3'-Dideoxycytidine Analogs Are Selective Inhibitors of Hepatitis B Virus In Vitro," <i>Antimicrobial Agents and Chemotherapy</i> , 38(9):2172-2174 (September 1994).

Examiner Signature	L. E. Crane	<i>L. E. Crane</i>	Date Considered	01/16/2006
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Sheet	12	of	14	Attorney Docket Number	18085.105237 EMU 133 CON 5

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<i>J. E. C.</i>	LA	SCHINAZI, R.F., <i>et al.</i> , "Activities of the Four Optical Isomers of 2',3'-Dideoxy-3'-Thiacytidine (BCH-189) against Human Immunodeficiency Virus Type 1 in Human Lymphocytes," <i>Antimicrobial Agents and Chemotherapy</i> , 36(3):672-676 (March 1992).	
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** Duplicate citation: see PTO-892 for original cite.

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STATEMENT BY APPLICANT

Sheet 13 of 14

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**	MA	STORER, R., <i>et al.</i> , "The Resolution and Absolute Stereochemistry of the Enantiomeris of cis-1-[2-(Hydromethyl)-1,3-Oxathiolan-5-yl]cytosine (BCH189): Equipotent Anti-HIV Agents," <i>Nucleosides & Nucleotides</i> , 12(2):225-236 (1993).	
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<i>Me</i>	MN	WORLD HEALTH ORGANIZATION, "Progress in the Control of Viral Hepatitis: Memorandum from a WHO Meeting," <i>Bulletin of the World Health Organization</i> , 66(4):443-455 (1988).	

Examiner Signature

L. E. Crane

Date Considered

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<i>JRC</i>	NA	YOKOTA <i>et al.</i> , "Comparative Activities of Several Nucleoside Analogs Against Duck Hepatitis B Virus In Vitro," <i>Antimicrobial Agents and Chemotherapy</i> , 34(7):1326-1330 (July 1990).	
<i>JRC</i>	NB	ZHU, Zhou, <i>et al.</i> , "Cellular Metabolism of 3'-Azido-2',3'-Dideoxyuridine with Formation of 5'-O-Diphosphhexase Derivatives by Previously Unrecognized Metabolic Pathways of 2'-Deoxyuridine Analogs," <i>Molecular Pharmacology</i> , 38:929-938 (1990).	

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